Impact of a Logging Road and Helicopter Landing on Wildlife Habitat near Jones Lake

Complaint Investigation 990218

FPB/IRC/41

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The Investigation

On September 27, 1999, the Forest Practices Board received a complaint from the Chilliwack Field Naturalists (the complainant). The complainant said that a logging road and a helicopter landing beside Jones Lake would affect mountain beaver and grizzly bear habitat.

The Board decided to investigate whether it was reasonable for the Ministry of Forests (MOF) district manager to approve the road and landing, considering the concerns about impacts on wildlife habitat.

Background

Jones Lake, also known as Wahleach Lake, is located in the Chilliwack Forest District, about 10 kilometres south of the Trans-Canada Highway, near Hope. Interfor (the licensee) holds a forest licence in the area.

Interfor's approved 1998-2000 forest development plan showed plans for helicopter logging beside Jones Lake. The licensee planned to fly timber from two cutblocks on the west side of the lake to a heli-landing located on the Lake Main road. The Lake Main is an old road that runs along the east shore of the lake. The helicopter would drop logs at the heli-landing, where they would be loaded on trucks and hauled away.

In February 1999, the licensee requested a major amendment to its forest development plan. The amendment involved a number of cutblocks, including two beside Jones Lake. The amendment would permit the licensee to extend and reconstruct the Lake Main road, and to construct two new heli-landings. The new heli-landings would be closer to the cutblocks than the one originally approved and would result in reduced flight times and costs.

The Ministry of Environment, Lands and Parks (MELP) reviewed the amendment and expressed concerns about wildlife habitat in general, stream crossings and bear den sites. MELP recommended that the original heli-landing be used.

On May 12, 1999, the MOF district manager approved the major amendment to the forest development plan to allow for the reconstruction and extension of the Lake Main road and construction of the two heli-landings. On June 3, 1999, the district manager approved a road permit for the work; however, the road permit did not permit the construction of the final 131 metres of road or the second heli-landing. The district manager stated that a further review of riparian management concerns was required.

Three weeks later, on June 22, 1999, MELP, MOF and Interfor staff visited the site. They discovered one mountain beaver burrow in the planned road right-of-way and two burrows in the proposed location of the second new heli-landing. Mountain beavers are muskrat-size rodents that inhabit wet, densely-vegetated areas. There are two subspecies in British Columbia. One subspecies is considered "red-listed," which means it is endangered or threatened. The other subspecies is "blue-listed," which means it is sensitive or vulnerable. The distribution of the red-listed subspecies in British Columbia is limited to an area south of the Fraser River between Langley and Hope. The blue-listed subspecies is found in higher-elevation forested

areas east of Hope, in the Cascade Mountains. The red-listed subspecies is at risk primarily because of habitat loss due to urban development; whereas the blue-listed subspecies is at risk because of its small population size. It is not known which subspecies inhabits the Jones Lake area, however MELP staff suspect it is the red-listed subspecies.

On June 29, 1999, the licensee applied for an amendment to the road permit to rebuild the remainder of the road and construct the second heli-landing. In July 1999, MELP recommended that a road permit authorizing the construction of the second new heli-landing not be approved, in part because of the impact on mountain beaver. MELP was also concerned about the impact rebuilding the road would have on fish habitat, fish restoration work undertaken by BC Hydro and the riparian reserve zone of Jones Lake. MELP staff stated that, based on "a confirmed sighting near Jones Lake in 1999," the south end of Jones Lake was considered grizzly bear habitat. The district manager questioned the accuracy of the sighting because normally, sightings are confirmed with photographs or DNA evidence. In this case, a BC Hydro employee observed the animal. The district manager approved the road permit on August 10, 1999.

On September 27, 1999, the Chilliwack Field Naturalists filed a complaint with the Board. At that time, the complainant had not visited the site. Recognizing that a site visit involving the complainant and the licensee could help resolve the complaint, the Board decided to suspend active investigation until the visit took place. That visit took place on May 24, 2000 after the snow had melted. However, the site visit did not resolve the complaint. In fact, many more mountain beaver burrows were discovered in and around the second approved landing location.

To date, the final 500 metres of road and the second heli-landing have not been constructed.

Investigation Findings

The investigation examined the district manager's decision to approve the amendment, the efforts made to address wildlife habitat concerns, and whether the Code provided any protection for wildlife habitat identified after approval of the amendment.

A) Approval of the amendment

Was it reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve wildlife habitat?

Section 41(1)(b) of the *Forest Practices Code of British Columbia Act* (the Act) states that a district manager must approve an operational plan or amendment if, among other criteria, the district manager is satisfied that the plan or amendment will adequately manage and conserve the forest resources of the area to which it applies. The definition of forest resources under the Act includes wildlife. The investigation considered whether it was reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve wildlife, particularly, mountain beaver and grizzly bear.

The major amendment was available for public review and comment between February 1 and April 1, 1999. No public comments were received about the development near Jones Lake that

related to mountain beaver or grizzly bear. The complainant did not comment on the amendment. Although the opportunity to review and comment on the amendment was advertised in accordance with Code requirements, the complainant stated that they did not see the notices in the newspaper. The complainant explained that they are a volunteer organization and do not inspect all logging plans or local papers. A member brought this issue forward and the complainant acted on it.

The amendment was also referred to the Ministry of Environment, Lands and Parks. MELP reviewed the amendment and noted that the licensee planned to delete the original heli-landing, build two new heli-landings and construct additional road along the lakeshore. MELP stated that the heli-landings must be kept outside of the riparian management areas of any watercourses. MELP also requested that the original heli-landing be used in order to eliminate "road construction and several creek crossings, in addition to protecting a myriad of habitat values." If the original heli-landing could not be "environmentally or safely" constructed as proposed, MELP was prepared to consider additional road construction up to the first of the two proposed new heli-landings. MELP also noted that bear denning opportunities in the area were sparse and it recommended protection of potential den sites. These comments were specific to the two cutblocks, not the proposed road or landings.

The licensee responded to MELP's comments on April 28, 1999, and stated that the 2.5-kilometre flight distance from the original heli-landing to the cutblocks would be economically prohibitive. The licensee explained that rebuilding the Lake Main road would minimize new construction and the risk of sediment to water courses. They said landing locations and safe practices would minimize the impact on wildlife habitats; and development would be consistent with the requirements of the Code. The licensee also committed to review the proposal in the field with MELP when conditions permitted.

On May 12, 1999, the district manager prepared a rationale when he considered approving the major amendment. He noted the concerns about protecting bear den sites within the two cutblocks near Jones Lake, and he instructed the licensee to identify and strive to retain essential habitat features on a site-specific basis. MELP's comments about the road and heli-landings as well as the licensee's response were listed in the rationale. The district manager was also aware of the licensee's commitment to a field review with MELP.

On May 12, 1999, the district manager approved the amendment and notified the licensee. The district manager stated in his determination letter that he was "satisfied that the plan will adequately manage and conserve the forest resources to which it applies under Section 41(1)(b) of the Act."

At the time the district manager approved the amendment, he had not received any comments from the public, the complainant or MELP expressing concerns about mountain beaver or grizzly bear habitat in the Jones Lake area. The lack of comment about mountain beaver is not surprising because MELP, the licensee and MOF did not know about the mountain beaver burrows at the time the amendment was approved. MELP explained that it does not have the resources to review every proposed development in the field before approval, and even if staff had gone to the site before the amendment was approved, snow conditions would have made it unlikely that mountain beaver burrows would have been discovered. However, MELP did express a general concern about the need to protect "a myriad of habitat values."

The district manager told the Board that he expected only general comments at the forest development planning stage, and comments about site-specific concerns were normally provided at more detailed planning levels, such as the approval of a silviculture prescription. However, the district manager also said that MELP's comment about a "myriad of habitat values" was too general to be useful. He said that such a comment would apply to most of coastal British Columbia and that comments of such a general nature would not be addressed unless additional information was provided. Nevertheless, MELP's general comment could be considered as a warning that significant habitat values could be affected by development. The district manager was already aware of some wildlife values at Jones Lake, including the knowledge that the lake had been fertilized to enhance the Kokanee salmon population. Given this, a prudent approach would have been to clarify the comment through discussions among the licensee, MOF and MELP. As it is up to the district manager to satisfy himself that the amendment would adequately manage and conserve forest resources, the district manager should have initiated those discussions to ensure that he adequately understood and assessed the comment. These discussions may have highlighted the need for a site inspection before approval.

The district manager told the Board that site inspections are not normally carried out until after forest development plan approval, and that such inspections are intended to provide site-specific information for fine-tuning detailed operational plans. The district manager stated that he did not receive a request for a site inspection from MELP before the amendment was approved. MELP stated that it did not request a site inspection because it opposed the new proposal. MELP recommended that the original heli-landing be used.

In summary, the district manager was aware of some wildlife habitat values at Jones Lake as well as the licensee's response that development would be consistent with Code requirements and that landing locations and safe practices would safeguard habitat. The district manager was also aware of the licensee's commitment to a field review with MELP. The district manager stated that he was not aware of any critical issues that would cause him to withhold approval of the amendment. However, without seeking clarification of MELP's general concerns about habitat values, it was not reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve wildlife habitat.

Finding #1

Without seeking clarification of MELP's concerns about wildlife habitat values, it was not reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve wildlife habitat.

B) Efforts to address wildlife habitat issues

Mountain beaver burrows were first discovered within the planned road right-of-way and landing location on June 22, 1999, during the field review. This was six weeks after the district manager approved the major amendment to the forest development plan. More burrows were discovered during site visits on August 18, 1999, and May 24, 2000. The burrows were mapped on May 24, 2000.

Two months after the district manager approved the major amendment, MELP recommended that, in order to maintain grizzly bear habitat, roads not be built into the south end of Jones Lake. That comment applied to the extension of the Lake Main road.

The district manager explained that, in a situation where development has been approved but concerns are subsequently raised, he relies on discussions among the licensee, MELP and his staff to resolve them.

Mountain beaver

A licensee must obtain authorization, in the form of a road permit, before constructing or modifying a road on Crown land as per section 58(2)(a)(ii) of the Act. The district manager approved a road permit on June 3, 1999, three weeks before the field inspection took place and concerns about mountain beaver were raised. However, because of concerns about the impact on riparian areas, the district manager did not approve the reconstruction of the final 131 metres of road and the second heli-landing. This provided an opportunity for the parties to view the site and attempt to address any concerns.

During the field review on June 22, 1999, MELP, MOF and the licensee discovered a mountain beaver burrow within the planned road right-of-way. The licensee re-routed the flagging tape marking the road location approximately five metres away from the burrow. Two mountain beaver colonies were also found within the riparian management areas of the two streams at the proposed second heli-landing location. The following day, MELP informed the licensee and MOF that construction of the heli-landing would "impact habitat and dispersal opportunities for this sensitive identified wildlife species." MELP recommended that the heli-landing not be approved.

On June 29, 1999, the licensee applied for an amendment to the road permit to rebuild the remainder of the road and to construct the second heli-landing at a slightly different location. The licensee acknowledged that the originally-proposed landing was too close to adjacent creeks. The licensee stated that it believed the new location addressed MELP's concerns about the proximity of the landing to the creeks.

On July 23, 1999, MELP staff informed the licensee and MOF that they were unsure about how the construction of the road and the slightly modified landing would address the protection of mountain beaver colonies, and whether there were other colonies in the vicinity.

The district manager stated that he considered the advice of his staff who had been in the field, MELP's concerns, the licensee's response to those concerns, and the amended landing location. On August 10, 1999, the district manager approved the road permit amendment, so the licensee was permitted to reconstruct the final 131 metres of road and the second heli-landing.

Unlike a forest development plan, a district manager does not have to be satisfied that a road permit will adequately manage and conserve the forest resources of the area to which it applies. This is because a road permit simply allows the construction of a road that has already been subject to public and agency review, and has been approved in a forest development plan or as an amendment. The decision about whether the activities adequately manage and conserve forest resources is made when the forest development plan is approved

After the road permit was approved, MELP remained concerned about the road and landing. Another site visit was arranged on August 18, 1999 to look for alternatives to mitigate those concerns. After the site visit, MELP suggested three alternatives to the licensee:

1. Fly the wood to the first approved heli-landing.

2. Reroute the road outside of the lake riparian management area and extend it parallel to the lake.

3. Drop logs into Jones Lake, boom and transport them to a dewatering site.

The licensee considered the alternatives and provided the following reasons why the approved proposal was the least expensive and the best option for future access:

1. Flying the wood to the first landing would save $50,000 in road construction costs but increase flying costs by $90,000.

2. Rerouting the road would cost more than reconstructing the existing road. It would probably cause more sedimentation than the lower, flatter route, and the resulting parallel road system would increase overall site degradation.

3. The water drop would save road construction costs and flying costs but the towing, dewatering and debris removal would add about $90,000 to the cost.

The licensee committed to maintaining a 10-metre buffer on any mountain beaver dens found within the landing area, which had been suggested by MELP after the August 18, 1999 site visit.

The following spring, on May 24, 2000, the complainant arranged a site visit to discuss the development with the licensee and MELP and to look at options for moving the landing. However steep terrain, streams and riparian management areas limit the options for relocation. The site visit revealed many more mountain beaver burrows within the road and landing site than were previously known. In response, the licensee reiterated its commitment to providing a 10-metre buffer around any burrows found within the landing area.

In July 2000, the licensee decided to reconsider its plans for the area in light of the large number of burrows. The landing and the final 500 metres of road were not constructed in 2000.

Finding #2

The licensee made reasonable efforts to address MELP's concerns about the impact of development on mountain beaver burrows. The licensee took part in three field visits to identify and evaluate alternative road and landing locations. The licensee also committed to maintaining a 10-metre buffer around mountain beaver burrows found within the landing. Ultimately, the licensee decided to reconsider its plans for the area.

Grizzly bear

On July 23, 1999, MELP stated that in order to maintain grizzly bear habitat, roads should not be built into the south end of Jones Lake. This was two months after the amendment was approved. MELP told the Board that it probably should have raised the concern earlier.

The *British Columbia Grizzly Bear Conservation Strategy* was launched in 1995 to ensure the continued existence of grizzly bears and their habitat. The range of grizzly bears in the province was divided into population units, and Jones Lake is within the North Cascades population unit, very close to its western border. In April 1999, work began on a *Recovery Plan for Grizzly Bears in the North Cascades of British Columbia.* The plan is currently being drafted, and it prompted MELP to recommend that roads not be built in the area. The Code does not prohibit or restrict forest development while the grizzly bear recovery plan is being completed and approved.

On August 24, 1999, MELP stated that in order to maintain a quiet area for bears, there should be no vehicle traffic to the south end of the lake. MELP was concerned that the public would be able to access the south end of the lake after the licensee completed its operations.

In an October 20, 1999 letter to the complainant, the licensee committed to deactivating the road after harvesting to prevent public access to the south end of the lake. The deactivation would be subject to approval by MOF. However, MELP told the Board that this commitment did not address its concerns. MELP's position is that it is necessary to maintain the area surrounding the south end of Jones Lake in a roadless condition to adequately manage the grizzly bear values. In MELP's opinion, any access, including managed access, would place the species at undue risk.

Finding #3

The licensee committed to deactivating the road and landing, subject to MOF approval. However, MELP does not want any vehicle access to the south end of Jones Lake.

C) Code protection of wildlife habitat

Previously unidentified resource features

The Code provides for situations where resource features are discovered after a plan is approved. Section 51 of the Act describes the actions that must be taken by a person who carries out a forest practice and finds a resource feature that was not previously identified in an approved operational plan or permit. The person must stop the forest practice, refrain from threatening the resource feature, and promptly advise the district manager.

The *Operational Planning Regulation* definition of "resource feature" includes wildlife habitat features. The definition of "wildlife habitat feature" includes any localized feature agreed to by the district manager and a designated environmental official.

MELP wrote to the district manager in September 1997 and August 1998 to initiate discussions about the designation of wildlife habitat features for selected species in the Chilliwack Forest

District. The district manager told the Board that provincial direction is necessary to proceed with the establishment of wildlife habitat features, and the matter was under consideration in Victoria. The effect of this delay is that MELP did not consider the designation of a wildlife habitat feature to be a practical option. As a result, no wildlife habitat features have been designated in the Chilliwack district. The mountain beaver burrows at Jones Lake are not a wildlife habitat feature or resource feature as defined in the Code because the district manager and a designated environmental official have not agreed that they are.

Finding #4

The Ministry of Forests district manager and the Ministry of Environment, Lands and Parks designated environmental official did not consider designating the mountain beaver burrows at Jones Lake as a wildlife habitat feature. The district manager is awaiting provincial direction before establishing wildlife habitat features.

Identified wildlife

Both mountain beaver and grizzly bear have been designated as "identified wildlife" under the Code. Identified wildlife are species at risk that require special management attention during forest and range operational planning or higher level planning. The investigation considered how the Code protects identified wildlife species and their habitat.

The identified wildlife management strategy is a component of the Code that provides foresters and ranchers with best management practices for managing habitats. These habitats are called "wildlife habitat areas" (WHA) and the best management practices are called "general wildlife measures." Unlike the local agreement between the district manager and the designated environment official to designate a wildlife habitat feature, wildlife habitat areas require executive approval. The chief forester and the deputy minister of Environment, Lands and Parks must officially designate WHAs. As WHAs are identified, mapped and designated, their locations are made known to licensees and this information must be incorporated into subsequent forest development plans.

The identified wildlife management strategy also provides for "interim measures" that can be applied to a proposed WHA during the approval process. Interim measures are recommendations designed to protect a proposed WHA until general wildlife measures are implemented.

i) Mountain beaver

The *Managing Identified Wildlife – Procedures and Measures* (Volume 1-1999) guidebook suggests that a WHA for mountain beaver should encompass a 50-metre buffer around occupied colonies. The general wildlife measures for mountain beaver include protecting existing burrows and animals, ensuring the integrity of the burrow system and maintaining soil suitable for burrowing. Roads and landings should not be constructed within the WHA unless the district manager and regional fish and wildlife manager approve a variance.

A licensee is legally entitled to carry out approved operations until a WHA is established. A district manager cannot rescind approval of an approved plan. Only after a WHA is established

and that information is made known to the licensee would activities be subject to the general wildlife measures.

A WHA has not been established for the mountain beaver colonies at Jones Lake, but the process is underway. An application for a WHA was forwarded to the regional WHA committee on June 12, 2000. The committee endorsed the application and on June 14, 2000, MELP's rare and endangered species biologist wrote to the district manager and requested that interim measures be implemented immediately. MELP stated that interim measures would preclude road and landing construction and any practices that would damage burrows. MELP also arranged for a survey to identify the subspecies of mountain beaver and to accurately map the proposed WHA. That survey was carried out in the summer of 2000.

On February 21, 2001, MELP submitted a formal proposal to the regional WHA committee for a WHA for mountain beaver at Jones Lake.

The establishment of a WHA is a more formal and lengthy process than the designation of a wildlife habitat feature. In the circumstances of this complaint, the timing was not critical because the licensee is reconsidering its plans for the area. However, the licensee is legally entitled to proceed with approved operations, and the road could have been extended and the landing built before a WHA was established.

Finding #5

In the circumstances of the complaint, it was appropriate for MELP to apply for a WHA to protect mountain beaver habitat at Jones Lake because development was not imminent.

ii) Grizzly bear

A wildlife habitat area for grizzly bear has not been established for the Jones Lake area, nor has an application been made because MELP considered that to be premature. MELP told the Board that, when completed, the *Recovery Plan for Grizzly Bears in the North Cascades of British Columbia* will guide the establishment of wildlife habitat areas for grizzly bear.

Conclusions

1. At the time the district manager approved the amendment proposing the road and landings, he was unaware of the presence of mountain beaver at the site. However, he was aware that MELP was generally concerned that the proposal would affect a "myriad of habitat values" and that the licensee had proposed a field trip with MELP to view the site.

   It was not reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve wildlife habitat without first seeking clarification of MELP's comment about protecting habitat values. Clarification of the comment may have highlighted the need for a site visit before the amendment was approved.

2. Once mountain beaver burrows were discovered, the licensee made reasonable efforts to address MELP's concerns about the impact of development on the burrows. The licensee took part in three field visits to identify and evaluate alternative road and landing locations. The licensee also committed to maintaining a 10-metre buffer around mountain beaver colonies. Finally, the licensee decided to reconsider its plans for the area in light of the large number of burrows discovered in the spring of 2000.

3. The Code provides for situations where resource features are discovered after a plan is approved. If the district manager and the designated environmental official agreed that the mountain beaver habitat was a "wildlife habitat feature," the licensee would have to stop operations and refrain from threatening the habitat. However, the ministry officials did not discuss designating the mountain beaver burrows at Jones Lake as a wildlife habitat feature. The district manager is awaiting provincial direction before agreeing to establish wildlife habitat features.

   Instead, MELP formally proposed a wildlife habitat area for mountain beaver in June 2000. The process for establishing a WHA is more formal and takes significantly more time than the designation of a wildlife habitat feature. However, in this case it was appropriate for MELP to apply for a WHA to protect mountain beaver habitat at Jones Lake because the licensee was co-operative and development was not imminent. MELP has not proposed a WHA for grizzly bear at Jones Lake. The Recovery Plan for Grizzly Bears in the North Cascades of British Columbia will guide the establishment of wildlife habitat areas for grizzly bear when it is completed.

Recommendations

Improved communication

Respectful and cooperative dialogue between MELP and MOF is crucial to ensure that non-timber values such as wildlife are adequately managed and conserved. In the circumstances of this complaint, it concerns the Board that staff of MOF and MELP did not discuss the meaning of MELP's comments. In its report, *A Review of the Forest Development Planning Process in British Columbia*, the Board made a recommendation to foster improved communication, and that recommendation is applicable to this complaint.

The Board recommends that government take steps to foster and encourage an organizational environment that recognizes and reinforces the benefits of cooperation and respect. Government should develop measures to monitor and assess achievement of a positive working environment.

Direction for establishment of wildlife habitat features

The district manager is awaiting provincial direction before agreeing to the establishment of wildlife habitat features. No wildlife habitat features have been designated in the district.

The Board recommends that MELP and MOF provide interim direction to staff on the designation of wildlife habitat features until formal policies are developed.

Reconstruction of the remainder of the road and heli-landing

Currently, the final 500 metres of road and the second new heli-landing have not been constructed, and MELP remains opposed to the creation of access to the south end of Jones Lake.

The Board recommends that the Ministry of Forests and the Ministry of Environment, Lands and Parks re-evaluate the potential impact of the road on grizzly bear habitat.

Location of Complaint 990218 Jones Lake